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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,323

09/30/2003

Ulf Bodin

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EXAMINER

IBRAHIM, MOHAMED

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/673,323	<b>Applicant(s)</b> BODIN ET AL.	
	<b>Examiner</b> MOHAMED IBRAHIM	<b>Art Unit</b> 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5-17 and 31-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-17 and 31-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/11/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Amendment***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-17 and 31-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al. (Davies), U. S. Patent No. 6839767 in view of Krishnan et al. (Khrishnan), U. S. Patent No. 6366559 and further in view of Park, U. S. Patent Application Publication No. 2002/0036981.

Regarding claim 1, Davies discloses a method for performing admission control in order to offer assurances on forwarding quality in networks comprising the steps of: setting a threshold for each link where said threshold defines a maximum sum of forwarding resources requested by applications for their application data flows, ADFs, on the link (see e.g. fig. 5, col. 5 lines 3-37 and col.10 line 56-col. 11 line 3; a system for assuring admission control quality that utilizes threshold is provided); repeatedly measuring, during usage, multiplexing properties of the aggregated ADFs on each link, wherein the measuring occurs at a rate that is lower than the maximum sum of forwarding resources (see e.g. fig. 5 and col. 11 line 53-col. 12 line 6; user periodically measure the bandwidth usage); dynamically adapting the level of said threshold by utilizing the measured multiplexing properties of the ADFs on each link and by utilizing knowledge about the forwarding resources of the links (see e.g. col. 9 lines 23-32 and col. 10 lines

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7-27; admission controller makes decision on whether or not to forward message from a sender via the link which depend of the bandwidth and flow of data) .

Although Davies discloses the invention substantially as claimed, it does not explicitly disclose controlling admission to each link based on the threshold.

Khrishnan teaches a system for traffic admission control and routing in a communication network that multiplexes different traffics onto a link. The system determines admission costs for each link based on the cost threshold (see e.g. figs.4, 5 and col. 5 lines 15-32 and col. 6 lines 19-42). At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the teachings of Khrishnan with that of Davies. Motivation for doing so would have been to achieve multiplexing efficiency by utilizing traffic admission control techniques (see Krishnan col. 2 lines 3-16).

Although the combined reference disclose the invention substantially as claimed, they do not explicitly disclose that the measurement is performed over a period of time.

Park teaches traffic connection admission control system wherein a measurement of the available resource bandwidth is calculated over a predetermined period of time (see Park, paragraph [0021]). At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the teachings of Park with that of Davies-Khrishnan. Motivation for doing so would have been to enhance the quality of service by providing connection admission control in a real time (see Park, paragraph [0011]).

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Regarding claim 5, Davies-Krishnan-Park teaches setting an initial threshold for each link (see e.g. Davies, col. 12 line 51-col. 13 line 4).

Regarding claim 6, Davies-Krishnan-Park teaches choosing the initial threshold estimating multiplexing properties of different ADFs off-line, said estimation being based on results from preparatory tests of recorded samples of ADFs, which are expected on a link and use this estimation when choosing the level of said threshold (see Davies, col. 7 lines 30-38).

Regarding claim 7, Davies-Krishnan-Park teaches performing the measurements at least two different rates (see Davies, col. 8 lines 34-59).

Regarding claim 8, Davies-Krishnan-Park teaches measuring at a first rate, which is equal to or lower than the amount of allocated resources on the link and measuring at a second rate, which is lower than the first rate (see Davies, col. 11 lines 22-32).

Regarding claim 9, Davies-Krishnan-Park teaches wherein the second rate is dependent on the reserved resources on the link and the threshold (see Davies, col. 8 lines 34-58).

Regarding claim 10, Davies-Krishnan-Park teaches increasing the threshold when both the measurement at the first and second rates indicate lower loss-rates than what

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is assured (see e.g. col. 11 lines 33-58); decreasing the threshold when both the measurement at the first and second rates indicate higher loss-rates than what is assured; and maintaining the threshold when the measurement at the second rate indicates higher loss-rate than assured and the measurement at the first rate indicates lower loss-rate than assured (see Davies, col. 12 lines 19-37).

Regarding claim 11, Davies-Khrishnan-Park teaches introducing a measurement threshold, which defines a level of forwarding capacity reservations on the link above which the measurements are initiated (see Davies, col. 11 lines 4-21).

Regarding claim 12, Davies-Khrishnan-Park teaches increasing the measurement threshold in steps but not over a predefined maximum level which is lower than the level of allocated resources of the link when the measurement at the second rate indicates higher loss-rate than assured and the measurement at the first rate indicates lower loss-rate than assured (see Davies, col. 11 lines 34-58).

Regarding claim 13, Davies-Khrishnan-Park teaches measuring at a third rate, which is higher than the first rate but equal to or lower than the allocated resources of the link when the measurement at the first rate indicates a higher loss rate than assured, the loss rate measured at the third rate being indicative of if it is necessary to pre-empt ADFs from the link or if it is enough to prevent new ADFs from entering the link (see Davies, col. 11 lines 33-58 and col. 12 line 51-col. 13 line 4).

Regarding claim 14, the limitations of this claim is substantially the same as that of claim 1 and thus is rejected for the same rationale in the rejection of claim 1.

Regarding claim 15, Davies-Krishnan-Park teaches characterized in that it comprises or is connectable to a measuring means adapted to perform measurements on the links (see Davies, col. 12 lines 7-18).

Regarding claims 16-17, the limitations of these claims have already been addressed (see claim 1 above).

Claim 31 list all the same elements of claim 1, but in device form rather than method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 31.

Regarding claim 32, the limitations of these claims have already been addressed (see claim 5 above).

Regarding claim 33, the limitations of these claims have already been addressed (see claim 6 above).

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Regarding claim 34, the limitations of these claims have already been addressed (see claim 7 above).

Regarding claim 35, the limitations of these claims have already been addressed (see claim 8 above).

Regarding claim 36, the limitations of these claims have already been addressed (see claim 9 above).

Regarding claim 37, the limitations of these claims have already been addressed (see claim 10 above).

Regarding claim 38, the limitations of these claims have already been addressed (see claim 11 above).

Regarding claim 39, the limitations of these claims have already been addressed (see claim 12 above).

Regarding claim 40, the limitations of these claims have already been addressed (see claim 13 above).



***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 5-17 and 31-40 have been considered but are moot in view of the new ground(s) of rejection.

***Prior Art of Record***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to form PTO-892 (Notice of Reference Cited) for a list of relevant prior art.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMED IBRAHIM whose telephone number is (571)270-1132. The examiner can normally be reached on Monday through Friday from 7:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn, Jr. can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohamed Ibrahim/  
Examiner, Art Unit 2444

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/Paul H Kang/

Primary Examiner, Art Unit 2444